

FOCUS

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2010 Vital Statistics (Provisional)

The DHSS Bureau of Vital Statistics annually publishes a summary report on the previous year's resident live births, deaths and abortions, as well as marriages and divorces recorded in the state regardless of residency. This report analyzes 2010 data in comparison with 2009 and 2000, unless otherwise specified. At the time of this report, 2010 data on live births, deaths, marriages and dissolutions were provisional. Final results are not expected to differ significantly. On January 1, 2010, Missouri implemented a web-based birth registration system and made revisions to several of the questions asked when registering births. Key indicators in this report that were affected by the revised questions are noted in this report.

The Missouri infant death rate reached a record low level of 6.5 per 1,000 live births, nearly a 10 percent drop from the previous low of 7.2 set in 2000, 2008 and 2009, according to provisional 2010 vital statistics data shown in Table 1. Despite the decrease, Missouri's infant death rate is still above the national provisional 2010 rate of 6.1 per 1,000 live births.¹ The African-American rate decreased by 14 percent from 13.8 in 2009 to 11.9 per 1,000 live births in 2010, while the white rate decreased more modestly from 6.1 to 5.5 during the same time period. Despite the larger decrease, African-Americans still have a rate more than twice the Caucasian rate.

Table 1

Vital Statistics for Missouri: 2000, 2009 and Provisional 2010

	<i>Numbers</i>			<i>Rates per 1,000 Population</i>		
	2000	2009	2010(prov)	2000	2009	2010(prov)
Births	76,329	78,849	76,324	13.6	13.2	12.7
Deaths	54,602	54,064	54,299	9.8	9.1	9.1
Natural increase	21,727	24,785	22,025	3.9	4.2	3.7
Marriages	43,665	38,741	38,998	7.8	6.5	6.5
Divorces	24,980	22,168	23,349	4.5	3.7	3.9
Infant deaths	547	564	496	7.2*	7.2*	6.5*
Abortions	12,292	10,815	9,796	161.0*	137.2*	128.4*
Population (1000s)	5,596	5,956	5,988			

*Per 1,000 live births

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Reasons for the infant mortality decrease include both a decrease in very small (less than 1 pound 2 ounces) babies as well as a decrease in post-neonatal (age 1 month to less than one year) deaths. The number of very small babies declined by nearly 20 percent from 2009 to 2010 from 147 to 118, and 80 to 90 percent of these infants usually died shortly after birth. Post-neonatal deaths decreased from 208 in 2009 to 184 in 2010 and include such causes as SIDS and suffocation in bed.

Among other vital statistics data, live births continued to decrease during the slow economy as Missouri resident births decreased by 3.2 percent from 78,849 in 2009 to 76,324 in 2010. The 2010 birth count is 5.7 percent below the 2008 number and 6.8 percent below the recent peak year of 2007. Total Missouri deaths increased from 54,064 in 2009 to 54,299 in 2010. Despite this increase in deaths, the Missouri life expectancy remained at a record level in 2010, 77.6 years at birth. The Missouri life expectancy is still below the latest available national life expectancy of 78.2 years in 2009. Male life expectancy moved within five years of female life expectancy for the first time since the 1940s as Missouri males had a life expectancy of 75.2 years in 2010 compared with 80.1 years for females.

The six leading causes of death in 2010 remained in the same order as in 2009 (See Table 2) with heart disease still the number one killer, followed by cancer, chronic lung disease, stroke, unintentional injuries and Alzheimer's disease. Pneumonia and influenza deaths dropped from number seven to number nine in the ranking with a decrease in deaths of more than 11 percent from 2009 to 2010. Diabetes and kidney disease (nephritis) moved up to number seven and eight, respectively. Suicide was the tenth leading cause of death in Missouri in 2010. Among the leading causes of death decreasing in 2010 were heart disease, stroke, and suicide, as well as pneumonia and influenza. Other leading causes of death increased, with Alzheimer's disease showing the largest increase of 15 percent from 2009 to 2010. Heart disease deaths decreased by 1.8 percent in 2009, and have decreased by nearly 22 percent since 2000. Cancer mortality has been more stable, increasing just eight deaths in 2010 and by 2.1 percent since 2000. The difference between heart disease and cancer deaths has decreased from 5,255 in 2000 to 1,115 in 2010. If the current trends continue, cancer will surpass heart disease as the state's number one killer by 2014.

Table 2
Leading Causes of Death with Rates: Missouri Residents 2000, 2009 and Provisional 2010

<u>Leading Causes of Death</u>	<i>Numbers</i>			<i>Rates per 100,000 Population</i>		
	2000	2009	2010(prov)	2000	2009	2010(prov)
Heart Disease	17,382	13,845	13,598	310.7	232.5	227.1
Cancer	12,127	12,435	12,443	216.7	208.8	207.8
Lung cancer	3,748	3,836	3,874	67.0	64.4	64.7
Chronic lung disease	2,804	3,436	3,494	50.1	57.7	58.4
Stroke	3,853	3,013	2,948	68.9	50.6	49.2
Unintentional injury	2,331	2,868	2,878	41.7	48.2	48.1
Motor vehicle	1,128	903	792	20.2	15.2	13.2
Falls	419	663	599	7.5	11.1	10.0
Poisonings	184	776	902	3.3	13.0	15.1
Other	600	526	585	10.7	8.8	9.8
Alzheimer's disease	1,144	1,719	1,978	20.4	28.9	33.0
Diabetes	1,458	1,326	1,397	26.1	22.3	23.3
Nephritis & nephrosis	958	1,226	1,300	17.1	20.6	21.7
Pneumonia & influenza	1,497	1,346	1,176	26.8	22.6	19.6
Suicide	697	857	834	12.5	14.4	13.9

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Table 3
Trends in Maternal and Child Health Statistics: Missouri 2000, 2009 and Provisional 2010

	<i>Numbers</i>			<i>Percents</i>		
	2000	2009	2010(prov)	2000	2009	2010(prov)
Infant Deaths	547	564	496	7.2*	7.2*	6.5*
White	369	387	317	5.9*	6.1*	5.5*
Black	169	166	129	14.8*	13.8*	11.9*
Low Birth Weight	5,798	6,402	6,285	7.6	8.1	8.2
White	4,119	4,445	4,160	6.6	7.0	7.3
Black	1,517	1,710	1,493	13.3	14.2	13.8
Inadequate Prenatal Care	7,596	8,729	11,849	10.3	11.5	16.9
White	5,125	5,592	7,119	8.4	9.1	13.5
Black	2,169	2,604	2,977	20.9	23.1	30.7
Preterm (<37 weeks)	9,423	9,879	9,400	12.3	12.5	12.3
Multiple Births	2,384	2,701	2,846	3.1	3.4	3.7
Birth Spacing<18 mos.	4,657	5,183	4,897	10.8	11.9	11.8
Out-of Wedlock Births	26,407	32,222	30,717	34.6	40.9	40.2
Teen(10-19) Births	9,971	8,570	7,701	13.1	10.9	10.1
Early Teen (10-17) Births	3,333	2,445	2,117	4.4	3.1	2.8
Smoking During Pregnancy	13,955	13,233	13,258	18.3	16.8	18.4
Medicaid Births	30,029	37,675	32,318	40.8	48.4	45.4
WIC Births	29,205	34,094	34,959	39.7	43.8	46.7
Food Stamps Births	12,004	22,250	24,564	16.3	29.4	34.4
C-Sections	17,444	25,517	24,317	22.9	32.4	31.9
Live Births	76,329	78,849	76,324			

*Infant Death rates are per 1,000 live births.

Note: Beginning in 2010, white and black races in this table are births in which only one race is selected from multiple choices, and they are Non-Hispanic. Before 2010, multiple choices were not allowed and Hispanics were included.

Births decreased in most major population areas of the state and primarily among mothers less than 25 years old. The largest decrease in births by age in 2010 occurred among teens, as there were 7,701 births to mothers under age 20 compared to 8,570 in 2009 (See Table 3), a 10.1 percent decrease. Births to women aged 20-24 declined by approximately 7 percent in 2010. The 2010 count of teen births is the lowest in Missouri since the end of World War II in 1945. The rates of birth to mothers aged 15-19 and 20-24 were at their lowest levels since Missouri began collecting birth data in 1911. The total fertility rate in 2010 was 1.93, the lowest since 1997. Total

fertility rate refers to the average number of births a woman would have if a given set of age-specific birth rates applied throughout her reproductive years.

Missouri resident abortions decreased by 9.4 percent in 2010, as 9,796 abortions occurred to Missouri women compared with 10,815 in 2009. This represents the first year below 10,000 resident abortions since the Roe vs. Wade Supreme Court decision in 1973.

As indicated earlier in this report, in 2010 Missouri implemented a web-based birth certificate system and revised several birth certificate questions that affected some key indicators. For example, the rate of inadequate prenatal care increased by 47 percent from 2009 to 2010, from 11.5 percent to 16.9 percent. This was due almost entirely to the change in information collection techniques. We asked for exact date of first prenatal care visit in 2010 as opposed to month prenatal care began in previous years.

Other maternal and child health indicators presented in Table 3 show the following in 2010:

- The rate of out-of wedlock births decreased from 40.9 percent in 2009 to 40.2 percent in 2010, as 30,717 out-of wedlock births occurred in 2010 compared to 32,222 in 2009 and 26,407 in 2000.
- Multiple births increased in 2010 to 3.7 percent from 3.4 percent in 2009 and 3.1 percent in 2000.
- Short (less than 18 months) spacing between births decreased slightly among 2010 births from 11.9 percent in 2009 to 11.8 percent.
- The rate of WIC and Food stamp births both continued to increase in 2010 over 2009 and 2000 figures. The rate of Medicaid births decreased in 2010 primarily as a result of a change in how the information was collected. In 2010, principal source of payment was asked as opposed to before 2010 when we asked whether the mother participated in Medicaid at any time during her pregnancy.
- The rate of mothers smoking during pregnancy increased from 16.8 percent in 2009 to 18.4 percent in 2010, which was also a result of a change in the question.
- The rate of preterm (less 37 weeks gestation) births declined from 12.5 percent in 2009 to 12.3 percent in 2010.
- The low birth weight (less than 5.5 pounds) rate increased slightly from 8.1 percent to 8.2 percent in 2010.
- The C-Section rate decreased from 32.4 percent in 2009 to 31.9 percent in 2010, but has increased by 39 percent in the last ten years. The latest available national data from 2008

show a comparable C-Section rate of 32.5 percent.²

Marriages and divorces both increased slightly in 2010, as approximately 38,998 couples married and 23,349 couples dissolved their marriages. Over the past decade, the marriage to divorce ratio was 1.82 and has been below 2.00 since 1989. This implies that over half of all Missouri marriages end in divorce.

¹ Provisional monthly and 12-month ending number of live births, deaths, and infant deaths and rates: United States, January 2009 – December 2010. Provisional data from the National Vital Statistics System, National Center for Health Statistics, CDC. http://www.cdc.gov/nchs/data/dvs/provisional_tables/Provisional_Table01_2010Dec.pdf

² Osterman MJK, Martin JA, Mathews TJ, Hamilton BE. Expanded data from the new birth certificate, 2008. National vital statistics reports; vol 59 no 7. Hyattsville, MD: National Center for Health Statistics. 2011. http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_07.pdf